SUPPLEMENTARY MATERIALS.

Supplementary Table S1. Distribution of the HIV partial pol sequences available by municipality and sampling date. The oldest and most recent sampling dates for each municipality is indicated.

Supplemental Figure S1. Sampling distribution over time. Bars are colored according to the region of sampling (in red for the State of Mexico and green for Mexico City).

Supplemental Figure S2. Relationship between the sampling and the number of clades identified in each location (A) relationship between clade size and number of municipalities. Scatter plot showing the association between sampling (number of sequence/population size) and number of clades (A) and clade size and number of municipalities (B). Only municipalities with ≥300 sequences are labelled (Panel A).

Supplementary Figure S3. Size of the HIV clades. Of the 1206 clades, 542 were dyads. The mean size was 4 sequences [95%CI:2-5].

Supplemental Figure S4. Visualization of clades identified and further analyzed for local phylodynamic dispersal using MicroReact (1). Maximum likeilihood phylogenetic tree (1) and geospatial distribution (B) of all clades of size z≥10 included in the discrete trait analyses. The sampling date corresponding to all sequences inlucded is plotted in panel (C) See also microreact project https://microreact.org/project/223ln8u9trx5cqxdaeyfsu.

Supplementary figure S5. Relative contribution of local and across states (Mexico City and State) inferred migration transmission events to the local HIV epidemics overtime.

Supplementary figure S6. Inferred migration events between municipalities by risk groups in the Mexico City' metropolitan zone over time. A. Map of the migration events. The thickness of the arrows reflects the average number of inferred migration events between municipalities. Municipalities are colored according to the number of sequences in clades (brown tones for Mexico State and green tones for Mexico City). Arrows are colored according to the risk groups of the sampled individuals: between heterosexuals (dark blue), from heterosexual to men who have sex with men (MSM, orange), from MSM to heterosexual (red), between MSM (light blue)

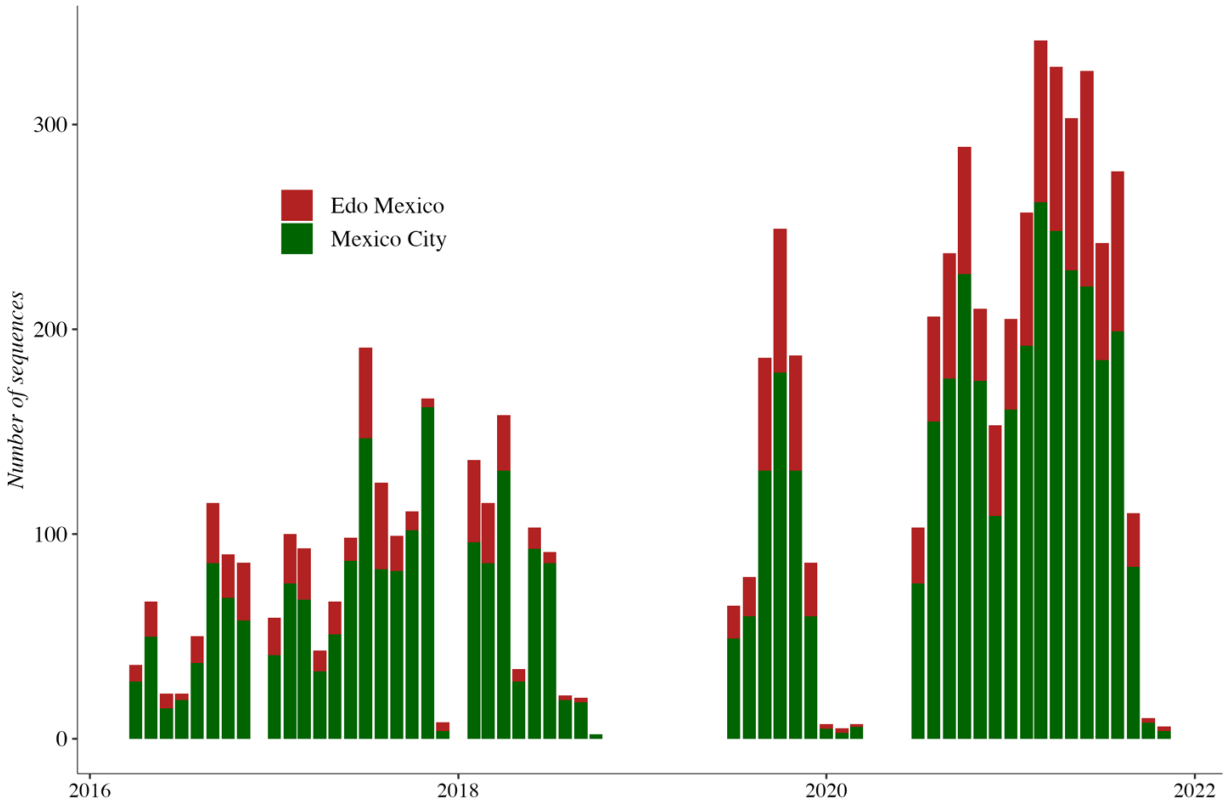
and between other risk groups (grey). **B**. Relative contribution of local (i.e. within Mexico state and within Mexico city) and across state (between Mexico city and state) inferred transmission events by risk group.

Data. the list of Genbank accession ID of publicly available sequences is made available online and upon request to the authors..

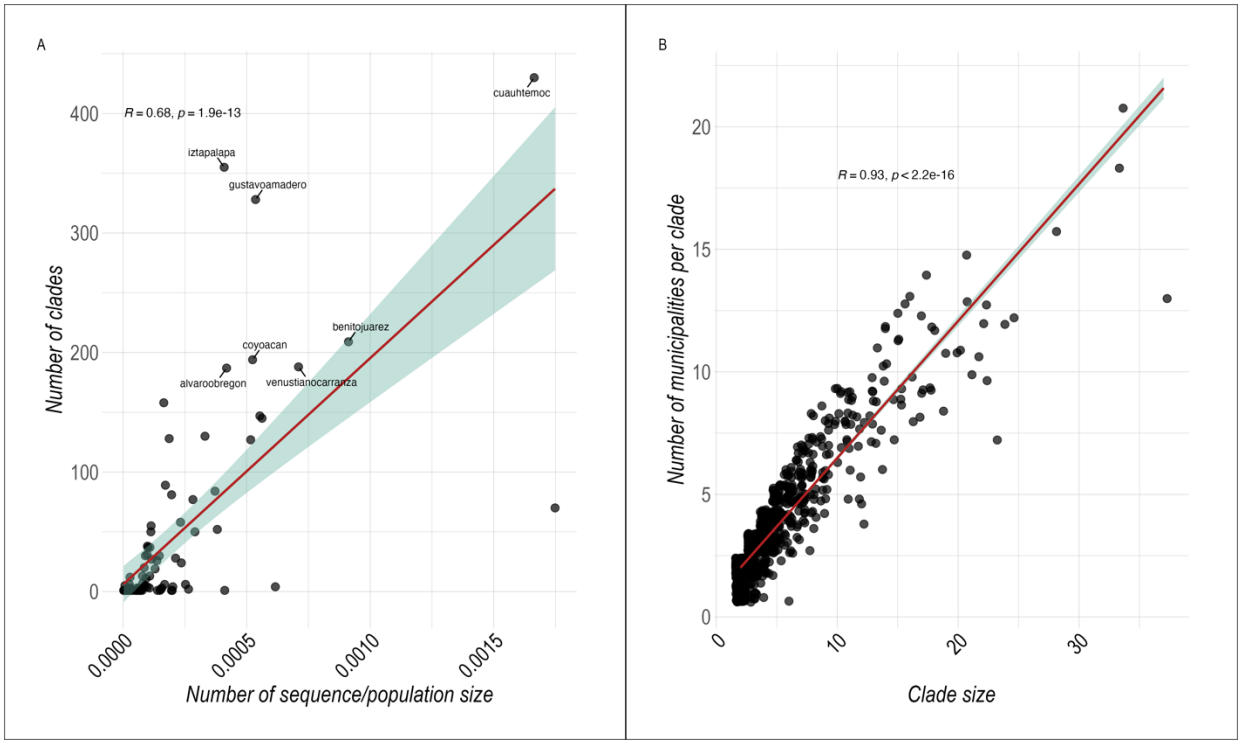
Supplementary Table S1. Distribution of the HIV partial pol sequences available by municipality and sampling date.

Region	Municipality	Number of sequences	Frequency	First sampling	Last sampling	Sampling period (days)
Edo Mexico	Acolman	16	0.235329	2016-05-19	2021-08-10	1,909 days
	Amecameca	3	0.044124	2017-02-21	2021-03-29	1,497 days
	Apaxco	5	0.073540	2017-03-15	2021-03-24	1,470 days
	Atenco	2	0.029416	2021-08-13	2021-08-16	3 days
	Atizapan	8	0.117664	2016-10-05	2018-03-07	518 days
	Atizapan de Zaragoza	57	0.838359	2016-09-19	2021-08-30	1,806 days
	Atlautla	1	0.014708	2018-04-25	2018-04-25	0 days
	Axapusco	1	0.014708	2021-05-03	2021-05-03	0 days
	Ayapango	2	0.029416	2018-04-13	2019-11-22	588 days
	Calimaya	1	0.014708	2018-02-23	2018-02-23	0 days
	Capulhuac	1	0.014708	2016-08-10	2016-08-10	0 days
	Chalco	93	1.367848	2016-05-17	2021-11-26	2,019 days
	Chapultepec	1	0.014708	2019-11-08	2019-11-08	0 days
	Chiautla	2	0.029416	2020-11-17	2021-05-24	188 days
	Chicoloapan	26	0.382409	2016-04-08	2021-08-23	1,963 days
	Chiconcuac	7	0.102956	2016-09-14	2020-09-24	1,471 days
	Chimalhuacan	80	1.176644	2016-04-05	2021-09-22	1,996 days
	Coacalco de Berriozabal	43	0.632446	2016-04-08	2021-10-08	2,009 days
	Cocotitlan	4	0.058832	2017-01-24	2021-05-12	1,569 days
	Coyotepec	4	0.058832	2016-09-22	2021-06-09	1,721 days
	Cuautitlan	38	0.558906	2016-05-09	2021-07-15	1,893 days
	Cuautitlan Izcalli	54	0.794234	2016-06-07	2021-09-08	1,919 days
	Ecatepec de Morelos	271	3.985880	2016-04-11	2021-09-22	1,990 days
	Huehuetoca	13	0.191205	2017-06-30	2021-06-23	1,454 days
	Hueypoxtla	1	0.014708	2021-04-06	2021-04-06	0 days
	Huixquilucan	33	0.485365	2016-10-06	2021-08-10	1,769 days
	Ixtapaluca	61	0.897191	2016-06-13	2021-08-27	1,901 days
	Ixtapan de la Sal	2	0.029416	2018-02-27	2019-08-21	540 days
	Jaltenco	3	0.044124	2016-09-07	2020-09-01	1,455 days
	Jilotepec	1	0.014708	2019-10-09	2019-10-09	0 days
	Jilotzingo	4	0.058832	2016-11-28	2021-05-24	1,638 days
	La Paz	26	0.382409	2017-01-09	2021-08-24	1,688 days
	Lerma	1	0.014708	2021-08-27	2021-08-27	0 days
	Melchor Ocampo	107	1.573761	2016-05-06	2021-01-11	1,711 days
	Metepec	3	0.044124	2017-06-26	2021-03-05	1,348 days
	Naucalpan de Juarez	143	2.103250	2016-09-02	2021-09-14	1,838 days
	Nextlalpan	5	0.073540	2017-07-20	2021-03-29	1,348 days
	Nezahualcoyotl	201	2.956317	2016-04-13	2021-11-25	2,052 days
	Nicolas Romero	39	0.573614	2016-11-18	2021-08-16	1,732 days
	Ocoyoacac	1	0.014708	2020-08-31	2020-08-31	0 days
	Otumba	1	0.014708	2018-02-07	2018-02-07	0 days
	Ozumba	2	0.029416	2016-06-01	2018-02-09	618 days
	Papalotla	2	0.029416	2017-07-24	2017-07-24	0 days
	San Jose del Rincon	2	0.029416	2021-08-16	2021-08-16	0 days
	San Martÿn de las Pirsamides	1	0.014708	2020-08-27	2020-08-27	0 days
	San Mateo Atenco	1	0.014708	2016-10-07	2016-10-07	0 days
	San Simon de Guerrero	1	0.014708	2017-08-28	2017-08-28	0 days
	Soyaniquilpan de Juarez	2	0.029416	2021-01-14	2021-01-14	0 days
	Tecamac	55	0.808942	2017-03-30	2021-09-22	1,637 days
	Temamatla	1	0.014708	2021-06-15	2021-06-15	0 days
	Temascalapa	2	0.029416	2017-11-01	2021-04-13	1,259 days
	Teoloyucan	11	0.161788	2016-09-12	2021-04-09	1,670 days
	Teotihuacan	5	0.073540	2017-09-28	2020-09-30	1,098 days
	Tepetlaoxtoc	5	0.073540	2017-06-29	2020-09-21	1,180 days
	Tepetlixpa	1	0.014708	2021-04-20	2021-04-20	0 days
	Tepotzotlan	3	0.044124	2016-10-12	2017-11-17	401 days
	Tequixquiac	1	0.014708	2020-10-07	2020-10-07	0 days
	Texcoco	38	0.558906	2016-09-23	2021-07-19	1,760 days
	Tezoyuca	3	0.044124	2019-09-23	2021-08-12	689 days
	Tlalmanalco	4	0.058832	2019-08-30	2021-05-03	612 days
	Tlalnepantla	151	2.220915	2016-05-23	2021-09-09	1,935 days
	Tlatlaya	2	0.029416	2016-09-30	2020-11-17	1,509 days
	Toluca	7	0.102956	2018-04-20	2021-04-07	1,083 days
	Tonanitla	1	0.014708	2020-10-07	2020-10-07	0 days
	Tonatico	1	0.014708	2017-07-13	2017-07-13	0 days
	Tultepec	17	0.250037	2016-07-22	2021-03-26	1,708 days
	Tultitlan	51	0.750110	2016-04-12	2021-10-18	2,015 days
	Valle de Bravo	2	0.029416	2020-07-14	2021-06-25	346 days
	Valle de Chalco	10	0.147080	2019-08-21	2019-12-02	103 days
	Villa del Carbon	1	0.014708	2019-12-09	2019-12-09	0 days
	Xonacatlan	1	0.014708	2020-11-20	2020-11-20	0 days
	Zacazonapan	1	0.014708	2017-02-07	2017-02-07	0 days
	Zinacatepec	1	0.014708	2021-08-11	2021-08-11	0 days
	Zumpango	22	0.323577	2016-10-13	2021-08-09	1,761 days
Mexico City	Alvaro Obregon	318	4.677158	2016-04-06	2021-09-22	1,995 days
	Azcapotzalco	243	3.574055	2016-04-06	2021-09-22	1,995 days
	Benito Juarez	396	5.824386	2016-04-14	2021-11-25	2,051 days
	Coyoacan	322	4.735991	2016-04-07	2021-09-23	1,995 days
	Cuajimalpa de Morelos	83	1.220768	2016-04-12	2021-09-02	1,969 days
	Cuauhtemoc	908	13.354905	2016-04-07	2021-10-13	2,015 days
	Gustavo A. Madero	629	9.251360	2016-04-07	2021-10-19	2,021 days
	Iztacalco	224	3.294602	2016-04-14	2021-09-22	1,987 days
	Iztapalapa	751	11.045742	2016-04-06	2021-11-08	2,042 days
	Magdalena Contreras	82	1.206060	2016-07-15	2021-10-20	1,923 days
	Malinalco	1	0.014708	2017-11-10	2017-11-10	0 days
	Miguel Hidalgo	214	3.147522	2019-07-17	2021-11-25	862 days
	Milpa Alta	36	0.529490	2016-10-28	2021-08-16	1,753 days
	Tejupilco	1	0.014708	2017-10-27	2017-10-27	0 days
	Tlahuac	146	2.147375	2016-04-13	2021-08-26	1,961 days
	Tlalpan	232	3.412267	2016-04-12	2021-09-09	1,976 days
	Venustiano Carranza	315	4.633034	2016-04-07	2021-09-22	1,994 days
	Xochimilco	125	1.838506	2016-05-18	2021-09-22	1,953 days

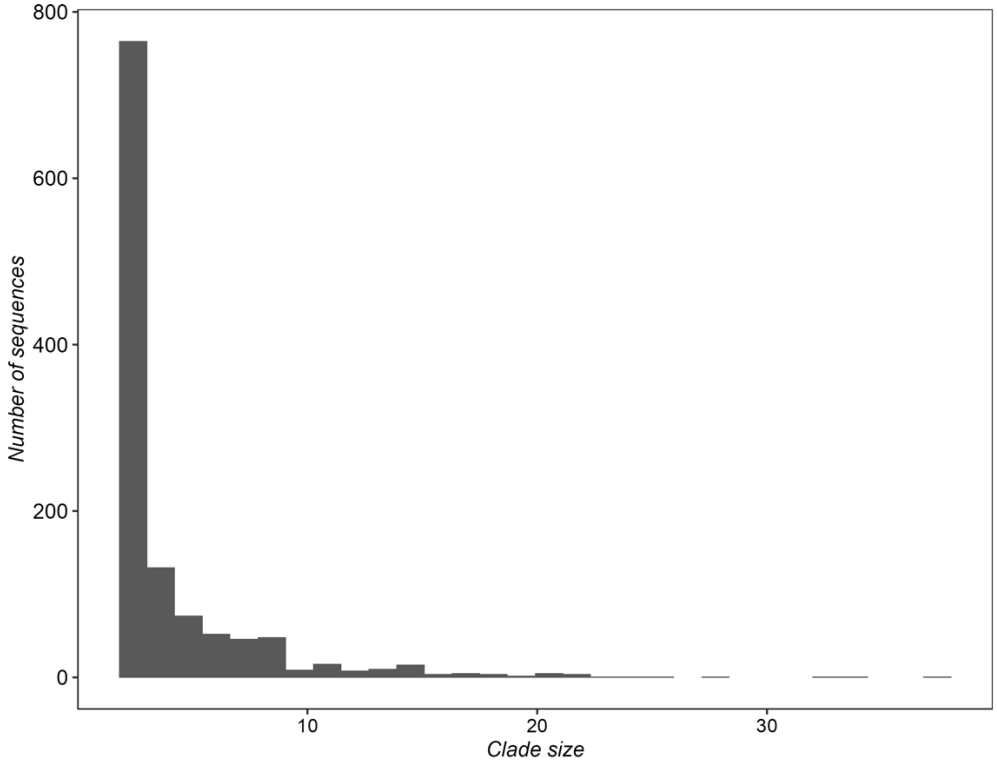
Supplemental Figure S1. Sampling distribution over time.



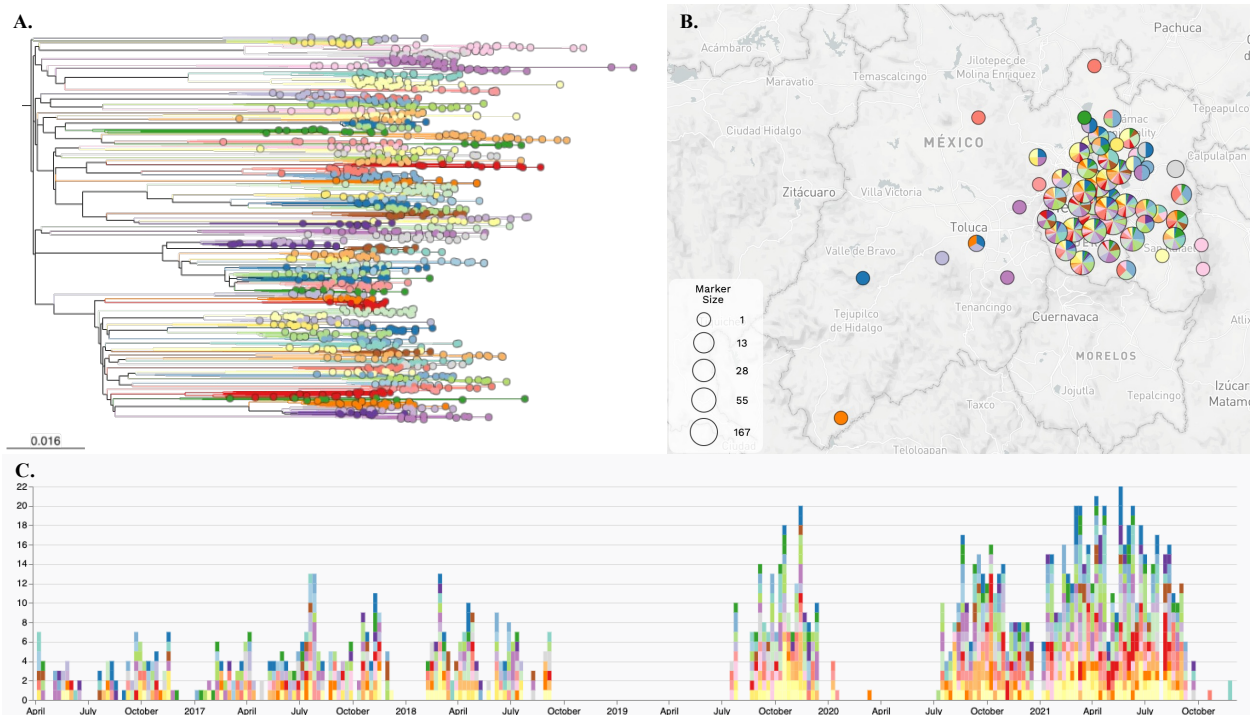
Supplemental Figure S2. Relationship between the sampling (number of sequences/population size) and the number of clades for each location (A) and relationship between clade size and number of municipalities (B).



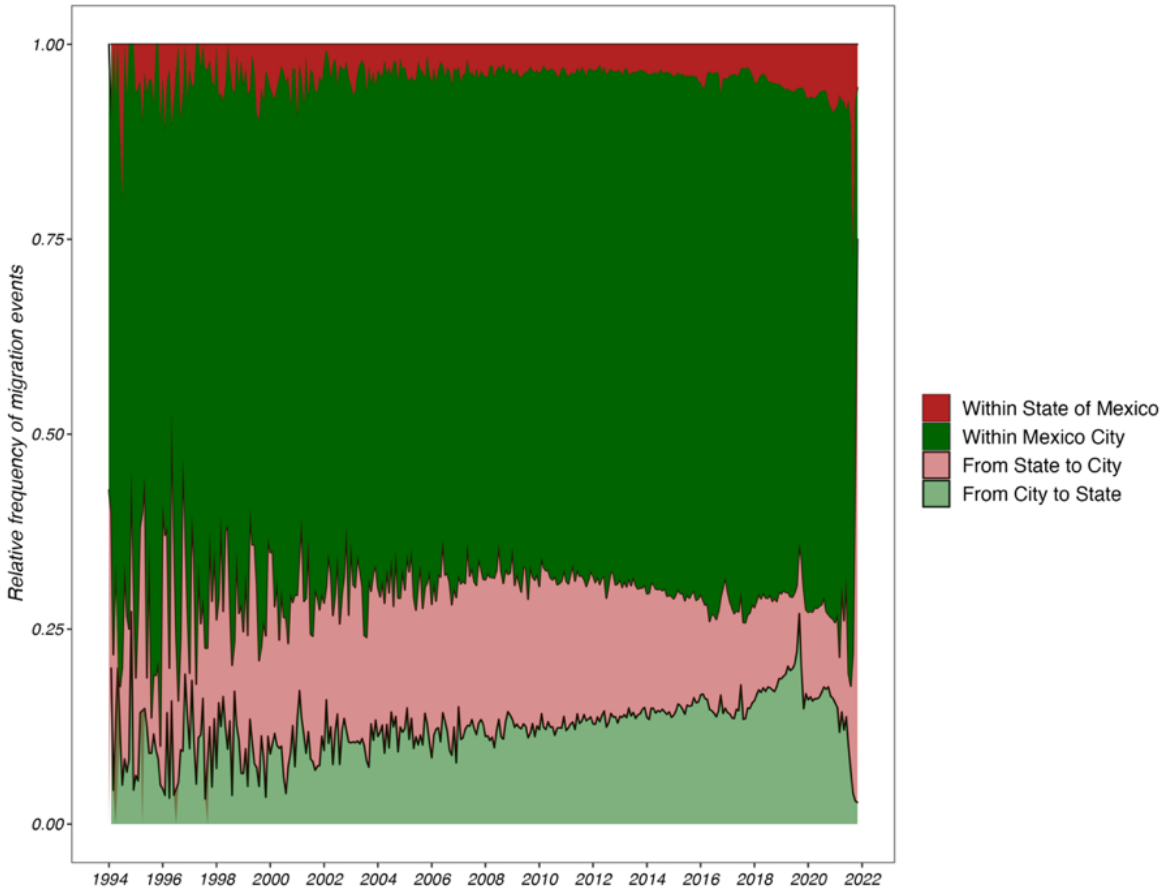
Supplementary Figure S3. Size of the HIV clades.



Supplemental Figure S4. Visualization of clades identified and further analyzed for local phylodynamic dispersal using MicroReact (1).

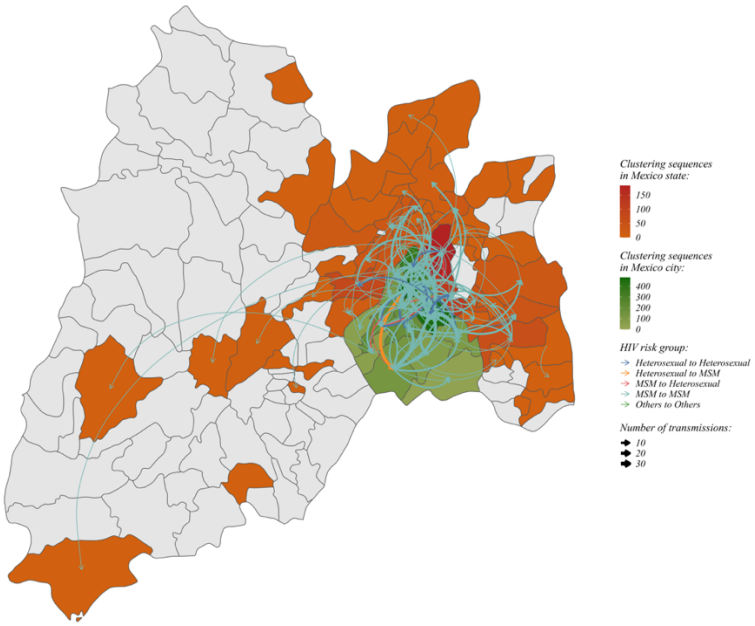


Supplementary figure S5. Relative contribution of local and across states (Mexico City and State) inferred migration transmission events to the local HIV epidemics overtime.

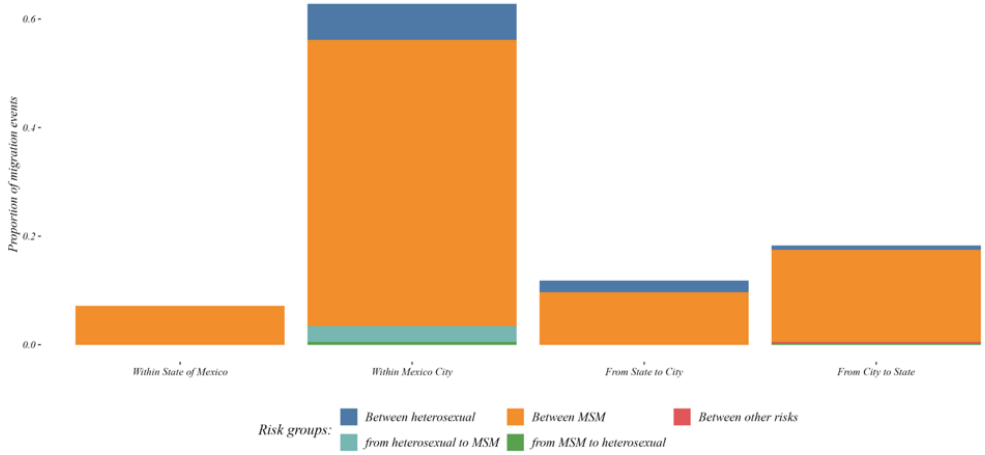


Supplementary figure S6. Inferred migration events between municipalities by risk groups in the Mexico City' metropolitan zone over time.

A.



B.



REFERENCES

1. Argimón S, Abudahab K, Goater RJE, Fedosejev A, Bhai J, Glasner C, Feil EJ, Holden MTG, Yeats CA, Grundmann H, Spratt BG, Aanensen DM. 2016. Microreact: visualizing and sharing data for genomic epidemiology and phylogeography. Microbial Genomics 2.